

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION**

**ORDER NO. 2000-203  
WASTE DISCHARGE AND WATER RECYCLING REQUIREMENTS  
FOR THE PRODUCTION AND PURVEYANCE  
OF RECYCLED WATER  
FOR  
CITY OF SAN DIEGO  
SOUTH BAY WATER RECLAMATION PLANT  
SAN DIEGO COUNTY**

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

1. The City of San Diego proposes to treat raw municipal wastewater collected from the communities of Otay Mesa, San Ysidro, the Tijuana River Valley, the City of Imperial Beach, the City of Chula Vista, and unincorporated sections of the County of San Diego at the South Bay Water Reclamation Plant (SBWRP) and to distribute the treated wastewater to customers in the Otay Valley HA (910.20) and Tijuana Valley HA (911.10) for a range of potential uses including the following: landscape irrigation, agricultural irrigation, industrial process, construction, restricted recreational impoundments, or landscape impoundments.
2. The requirements of this Order are consistent with the policies and the implementation programs described in the Water Quality Control Plan for the San Diego Basin (9) because the use of the treated wastewater from SBWRP in the Otay Valley HA and Tijuana Valley HA will not impact the beneficial uses and water quality objective of Otay Valley HA and Tijuana Valley HA.
3. In accordance with Section 2200, Title 23 of the California Code of Regulation, the threat to water quality and complexity of the use of the treated wastewater from SBWRP is determined to be category IIA.
4. The San Diego City Council adopted the findings of a final Environmental Impact Report and certified compliance with the California Environmental Quality Act for the Reclaimed Water Distribution Master Plan on April 28, 1997.
5. In establishing the requirements contained herein the Regional Board considered factors including, but not limited to, the following:
  - a) Beneficial uses to be protected and the water quality objectives reasonably required for that purpose,
  - b) Other waste discharges,
  - c) The need to prevent nuisance,
  - d) Past, present, and probable future beneficial uses of the hydrologic subunits under consideration,

- e) Environmental characteristics of the hydrologic subunits under consideration,
  - f) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area,
  - g) Economic considerations,
  - h) The need for additional housing within the region,
  - i) Need to develop and use recycled water.
6. The Regional Board has considered all water resource related environmental factors associated with the proposed discharge of waste from the SBWRP.
  7. The Regional Board has notified the City of San Diego and all known interested parties of the intent to prescribe waste discharge requirements for the proposed discharge.
  8. The Regional Board in a public meeting heard and considered all comments pertaining to the proposed discharge of waste from the South Bay Water Reclamation Plant.

**IT IS HEREBY ORDERED THAT**, the City of San Diego in order to meet the provisions contained in Division 7 of the California Water Code and Regulations adopted thereunder, shall comply with the following requirements for the discharge and purveyance of recycled water from the South Bay Water Reclamation Plant.

**A. DISCHARGE SPECIFICATIONS**

1. Effluent used for landscape irrigation purposes shall be treated to the most restricted level in conformance with all applicable provisions of California Code of Regulations, Title 22, Division 4, Chapter 3 (**Reclamation Criteria**) for landscaping irrigation (currently Section 60313 (b) ). The discharge from South Bay Water Reclamation Plant to the City of San Diego service area shall not contain pollutants in excess of the following effluent limitations:

EFFLUENT LIMITATIONS			
Constituent	unit	30-day Average <sub>1</sub>	Daily Maximum <sub>2</sub>
Biochemical Oxygen Demand (BOD <sub>5</sub> @ 20° C)	mg/l	30	45
Total Suspended Solids	mg/l	30	45
Total Dissolved Solids	mg/l	1200	1300
Chloride	mg/l	260	300
Sulfate	mg/l	250	300
% Na	%	60	60
Manganese	mg/l	0.05	0.06
MBAS	mg/l	0.5	0.7
Iron	mg/l	0.3	0.4

Boron	mg/l	0.75	1.0
Fluoride	mg/l	1.0	1.2
Coliform	MPN/100ml	*	*
Turbidity	NTU	**	**
PH	Within the limits of 6.0 to 9.0 at all times		

1 The **30-day** average effluent limitation shall apply to the **arithmetic** mean of the results all samples collected **during** any 30 consecutive calendar day period.

2 The daily maximum effluent limitation shall apply to the results of a single composite **or** grab sample.

\* The median concentration of total **coliform** bacteria **measures** in the disinfected effluent shall not exceed a most probable number (MPN) of 2.2 per 100 milliliters utilizing the bacteriological results of **the** last seven days for **which** analyses have been completed, and the number of total **coliform** bacteria shall not exceed an MPN of 23 per 100 milliliters in more than one sample in any **30-day** period. No sample shall exceed **an** MPN of 240 total **coliform** bacterial **per** 100 milliliters

\*\* Turbidity shall not exceed 2.0 NTU at any time.

2. Discharges to a landscape impoundment must be terminated whenever an overflow of the impoundment is imminent.

3. A 30-day average flow from SBWRP shall not exceed 15.0 million gallons unless the City of San Diego obtains revised waste discharge requirements for the proposed increased flow.

## **B. RECYCLED WATER PURVEYANCE REQUIREMENTS**

1. The City of San Diego shall have **Rules and Regulations for Recycled Water Users** governing the design and construction of recycled water use facilities and the use of recycled water. The Rules and Regulations shall be reviewed and updated if necessary by the City of San Diego when a new Order or Addendum is adopted by the Regional Board, and shall, at a minimum, include the *Rules and Regulations for Recycled Water Use Projects* which are contained in Attachment No. 1 to this Order.

The revised rules and regulations shall be subject to the review of the Regional Board the State Department of Health Services; and the San Diego County Department of Health Services, Environmental Health Services. The revised rules and regulations or a letter certifying that the City of San Diego's rules and regulations contain the updated provisions in the Order, shall be submitted to the Regional Board within 90 days of adoption of this Order by the Regional Board.

The City of San Diego shall implement and enforce the rules and regulations for recycled water users. Use of recycled water by the City of San Diego shall be consistent with its Rules and Regulations for Recycled Water Users. In addition, the City of San Diego shall submit an annual report certifying that the users have implemented the Rules and Regulations established by the

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City of San Diego.

2. The City of San Diego shall, within 90 days of the adoption of this Order, review and update if necessary, the program of Best Management Practices (BMP) for the recycled water users governing the irrigation practices, management and maintenance to avoid runoff, ponding, and overspray to verify it is consistent with Attachment No. 1 to this Order. The City of San Diego shall oversee that the recycled water users have implemented the BMP programs. The revised BMP program or a letter certifying the BMP program is consistent with Attachment No. 1 shall be submitted within 90 days of adoption of this Order.
3. The City of San Diego shall, within 90 days of the adoption of this Order, review and update if necessary, their program to conduct compliance inspections of recycled water reuse sites. Inspections shall determine the status of compliance with the City of San Diego's rules and regulations for recycled water use.
4. The City of San Diego shall do the following for all reuse sites:
  - a. Enforce recycled water rules and regulations,
  - b. Conduct recycled water reuse site compliance inspections in accordance with the program submitted in compliance with *Recycled Water Purveyance Requirements B.3* of this Order,
  - c. Notify the State Department of Health Services and the County of San Diego Department of Environmental Health of any incidence of recycled water backflow into the potable water system as soon as possible, but in no case later than 24 hours of finding the incident,
  - d. Maintain a current list of all on-site recycled water supervisors.
5. Recycled water shall not be supplied to parties who use, transport, or store such water in a manner which causes a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code.

Prior to delivering recycled water to any new user in the portion of the City of San Diego service area which is located under the purview of the San Diego Regional Board, the City of San Diego shall submit a report to this Regional Board, the State Department of Health Services, and the County Department of Health Services discussing the delivering system, the use, and the Hydrologic Subareas where recycled water will be delivered.

### C. FACILITY DESIGN AND OPERATION SPECIFICATIONS

1. PROPER OPERATION

The City of San Diego shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the City of San Diego to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order.

2. ENGINEERING REPORT

Recycled water shall not be purveyed to a user until all of the following have occurred:

- a. The City of San Diego shall develop an engineering report conforming to Section 60323, Article 7 of the California Code of Regulations, Title 22, Division 4, Chapter 3. The engineering report shall be submitted to the State Department of Health Services, County Department of Health Services, and the Regional Board for approval,
- b. The City of San Diego shall develop the rules and regulations for recycled water reuse. The rules and regulations report shall be submitted to the State Department of Health Services, County Department of Health Services, and the Regional Board for approval,
- c. The Regional Board has been notified of the completion of facilities by the City of San Diego,
- d. An inspection of the facilities has been made by staff of the Regional Board and DHS, and
- e. The Regional Board notifies the City of San Diego by letter that recycled water purveyance can be initiated.

3. DISINFECTION PROCESS

The City of San Diego shall comply with the following conditions:

- a. The tertiary process shall be operated at a constant flow of 15 MGD.
- b. The City of San Diego shall provide continuous, reliable monitoring of the effluent turbidity.
- c. The City of San Diego shall provide continuous, reliable monitoring of the fluid transmittance, and UV intensity.
- d. The effluent turbidity shall not exceed 2.0 NTU at any time. Treated waste water which does not meet this standard shall be diverted to the ocean outfall for disposal.
- e. A minimum UV dose of  $140\text{mWs/cm}^2$  shall be provided at all times including under worst operating conditions. When the treatment process does not provide the

minimum dose, treated waste water shall be diverted to an alternate disposal facility.

- f. The discharger shall maintain four UV banks with a minimum of three UV banks in series, each UV bank providing at least 1/3 of the dose to achieve the UV dose, and one UV bank on standby.
- g. The discharger shall maintain spare monitors and parts to ensure the continuous measurement of turbidity, UV transmittance, and UV intensity.
- h. Establish a maintenance program to ensure the continuous operation of monitoring equipment (covering calibration schedules, on line, and factory calibration).
- i. Results of the tracer study shall be submitted prior to placing the UV system into service. The study shall compare the hydraulic performance of a full-scale UV reactor to the pilot used to gain the Department's acceptance of the technology in a manner that ensures identical hydraulic behavior between the two systems.
- j. Prior to using the plant to provide reclaimed water, the City of San Diego shall submit an operations manual for the treatment plant for review by Regional Board and DHS.

4. PRETREATMENT PROGRAM

The City of San Diego shall comply with the pretreatment requirements established in Order No. 2000-129, *Waste Discharge Requirements for the City of San Diego, South bay Water Reclamation Plant, Discharge to the Pacific Ocean Through the South bay Ocean Outfall, San Diego County* for the area serviced by the South Bay Water Reclamation Plant.

5. OPERATION MANUAL

A copy of the facility operations manual shall be maintained at the City of San Diego's facility and shall be available to operation personnel and Regional Board staff at all times. The following portions of the operations manual shall be posted at the treatment plant as a quick reference for treatment plant operators:

- a) Alarm set points for secondary turbidity, tertiary turbidity, UV dose, UV intensity, UV transmittance in wastewater, high water level in UV channel;
- b) Levels at which flow will be diverted for secondary turbidity, tertiary turbidity, UV dose, UV transmittance in wastewater;
- c) When to divert flow for high daily and weekly median total coliform;
- d) When the authorities (DHS, DEH, Regional Board) will be notified of a diversion,

- e) Names and numbers of those authorities to be notified in case of a diversion;
- f) Frequency of calibration for turbidity meters, filter effluent flow meter, **W** intensity sensor, and filter effluent transmittance photometer;
- g. Frequency of mechanical cleaning of the quartz sleeves,

6. OPERATORS' CERTIFICATION

The City of San Diego's wastewater treatment facilities shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Chapter 26, Division 3, Title 23 of the California Code of Regulations.

7. FLOOD PROTECTION

All waste treatment, storage and purveyance facilities shall be protected against 100-year peak stream flows as defined by the San Diego County flood control agency.

8. RUNOFF PROTECTION

All wastewater and recycled water storage facilities shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24 hour frequency storm.

9. MONITORING AND REPORTING

The City of San Diego shall comply with attached Monitoring and Reporting Program No. 2000-203, and future revisions thereto as specified by the Regional Board. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2000-203.

10. SEWAGE SLUDGE

Disposal of sludge, grit, and screenings shall be in accordance with the method described in the Findings of this Order. Any modification to the location or method of sludge disposal must be approved by the Regional Board.

D. STANDARD PROVISIONS

1. ENFORCEMENT

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The Regional Board may initiate enforcement action against the City of San Diego, which may result in the termination of the recycled water supply, if any person uses, transports, or stores such water in a manner which creates, or threatens to create conditions of pollution, contamination, or nuisance, as defined in Water Code Section 13050.

### 2. DUTY TO COMPLY

The City of San Diego must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for (a) enforcement action; (b) termination, revocation and reissuance, or modification of this Order; or (c) denial of a report of waste discharge in application for new or revised waste discharge requirements.

### 3. ENTRY AND INSPECTION

The City of San Diego shall allow the Regional Board, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to do the following:

- (a) Enter upon the City of San Diego's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this Order,
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order,
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this Order,
- (d) Sample or monitor, at reasonable times for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

### 4. CIVIL MONETARY REMEDIES

Any person who intentionally or negligently violates any waste discharge requirements issued, reissued, or amended by this Regional Board shall be liable civilly in accordance with California Water Code Section 13350 (d), (e) or (f).

### 5. PENALTIES FOR INVESTIGATION, MONITORING OR INSPECTION VIOLATIONS

Any person failing or refusing to furnish technical or monitoring program reports, as



required under this Order, or falsifying any information provided in the monitoring reports is guilty of a misdemeanor and is subject to a civil liability in accordance with California Water Code Section 13268.

6. **ENDANGERMENT OF HEALTH AND ENVIRONMENT**

The City of San Diego shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the Regional Board within 24 hours from the time the City of San Diego becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the City of San Diego becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Regional Board, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. The following occurrence(s) must be reported to the Regional Board within 24 hours:

- (a) Any bypass from any portion of the treatment facility. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility to other than a sewer system.
- (b) Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge or any other circumstances.
- (c) Any treatment plant upset which causes the effluent limitations of this Order to be exceeded.

7. **PRIOR NOTICE OF BYPASS**

If a need for a discharge bypass is known in advance, the City of San Diego shall submit prior notice and, if at all possible, such notice shall be submitted at least 10 days prior to the date of the bypass. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility to other than a sewer system.

8. **CORRECTIVE ACTION**

The City of San Diego shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

9. TREATMENT FAILURE

In an enforcement action, it shall not be a defense for the City of San Diego that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the City of San Diego shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies for example, when the primary source of power of the treatment facility is failed, reduced, or lost.

10. HAZARDOUS RELEASES

Except for a discharge which is compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Director of Environmental Health Services, County of San Diego in accordance with California Health and Safety Code Section 5411.5 and the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.16) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the City of San Diego is in violation of a prohibition in the applicable Water Quality Control Plan.

11. PETROLEUM RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Article 3.5 (commencing with Section 8574.1) of Chapter 7 of Division 1 of Title 2 of the Government Code. This requirement does not require reporting of any discharge of

less than 42 gallons unless the discharge is also required to be reported pursuant to Section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan.

12. PERMIT REPOSITORY

A copy of this Order shall be maintained at the City of San Diego's facility and shall be available to operating personnel at all times.

13. RETENTION OF RECORDS

The City of San Diego shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board.

14. GENERAL REPORTING REQUIREMENT

The City of San Diego shall furnish to this Regional Board, within a reasonable time, any information which the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The City of San Diego shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

15. CAPACITY NOTIFICATION

When the City of San Diego determine that the South Bay Water Reclamation Plant will reach capacity within four years, the City of San Diego shall submit a technical report to the Regional Board. The technical report shall demonstrate that adequate steps are being taken to provide for future treatment plant capacity demands.

16. PERMIT REVISION

This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a) Violation of any terms or conditions of this Order,
- b) Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts or

- c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the City of San Diego for the modification, revocation and reissuance, or termination of this Order, or notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

17. CHANGE IN DISCHARGE

The City of San Diego shall file a new Report of Waste Discharge at least 120 days prior to the following:

- a) Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the wastes.
- b) Significant change in the treatment or disposal method (e.g., change in the method of treatment which would significantly alter the nature of the waste.)
- c) Change in the disposal area from that described in the findings of this Order.
- d) Increase in flow beyond that specified in this Order.
- e) Other circumstances which result in a material change in character, amount, or location of the waste discharge.
- f) Any planned change in the regulated facility or activity which may result in noncompliance with this Order.

18. CHANGE IN OWNERSHIP

This Order is not transferrable to any person except after notice to the Regional Board.

The City of San Diego shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new Recycled Water Agency containing a specific date for the transfer of this Order's responsibility and coverage between the current Recycled Water Agency and the new Recycled Water Agency. This agreement shall include an acknowledgement that the existing Recycled Water Agency is liable for violations up to the transfer date and that the new Recycled Water Agency is liable from the transfer date on. The Regional Board may require modification or revocation and reissuance of this Order to change the name of the Recycled Water Agency and incorporate such other requirements as may be necessary under the California Water Code.

19. INCOMPLETE REPORTS

Where the City of San Diego becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information.

20. REPORT DECLARATION

All applications, reports, or information submitted to the Regional Board shall be signed and certified as follows:

- a) The Report of Waste Discharge shall be signed as follows:
  - 1) For a corporation - by a principal executive officer of at least the level of vice-president.
  - 2) For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
  - 3) For a municipality, state, federal or other public agency - by either a principal executive officer or ranking elected official.
- b) All other reports required by this Order and other information required by the Regional Board shall be signed by a person designated in paragraph (a) of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if all of the following are true:
  - 1) The authorization is made in writing by a person described in paragraph (a) of this provision,
  - 2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity and
  - 3) The written authorization is submitted to the Regional Board.
- c) Any person signing a document under this Section shall make the following certification,

"I certify under penalty of law that I have personally examined and am familiar with the

information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

21. REGIONAL BOARD ADDRESS

The City of San Diego shall submit reports required under this Order or other information required by the Regional Board to the following address:

POTW Compliance Unit  
California Regional Water Quality Control Board  
San Diego Region  
9771 Clairemont Mesa Blvd, Suite A  
San Diego, California 92124-1331

E. NOTIFICATIONS

1. VESTED RIGHTS

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the City of San Diego from liability under federal, state or local laws, nor create a vested right for the City of San Diego to continue the waste discharge.

2. U.S. EPA REVIEW

These requirements have not been officially reviewed by the United States Environmental Protection Agency and are not issued pursuant to Section 402 of the Clean Water Act.

3. SEVERABILITY

The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on November 8, 2000.



JOHN H. ROBERTUS  
Executive Officer

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**ATTACHMENT NO . 1  
TO  
ORDER NO. 2000-203**



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### RULES AND REGULATIONS FOR RECYCLED WATER USE PROJECTS

Pursuant to California Water Code (CWC) Section 13523.1(b)(3), this Order requires the City of San Diego to establish and to enforce rules and regulations governing the design, construction and use of recycled water distribution and disposal systems by its customers. The rules and regulations shall be consistent with the with the following criteria:

- a) Title 22, Division 4, Chapter 3, *Wastewater Reclamation Criteria*;
- b) Title 17, Division 1, Chapter 5, Croup 4, Article 1 & 2, of the California Code of Regulations;
- c) The State Department of Health Services @OHS) *Guidelines For Use of Recycled Water, Guidelines for Use of Recycled Water for Construction Purposes, and the County of San Diego Department of Environmental Health Recycled Water Plan Check and Inspection Manual*;
- d) Any measures that are deemed necessary for protection of public health, such as the American Water Works Association (AWWA) California/Nevada Section, *Guidelines for the Distribution of Non-Potable Water and Guidelines for Retrofitting To Recycled Water* or alternate measures that are acceptable to DOHS.

At a minimum, the rules and regulations shall notify the users that:

- 1. The use of recycled water shall not cause a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code.
- 2. The City of San Diego, the Regional Board, the State and Local Health Department, or an authorized representative of these parties, upon presentation of proper credentials, shall have the right to enter upon the recycled water use site during reasonable hours, to verify that the user is complying with the City of San Diego's rules and regulations.
- 3. The recycled water user shall provide written notification, in a timely manner, to the City of San Diego of any material change or proposed change in the character of the use of recycled water.
- 4. Prior to the initiation of recycled water service, the recycled water user shall submit plans and specifications for recycled water distribution facilities to the City of San Diego.
- 5. The recycled water user shall designate a recycled water supervisor who is responsible for the recycled water system at each use area under the user's control. Specific responsibilities of the recycled water supervisor include the proper installation, operation, and maintenance of the irrigation system; compliance of the project with the City of San Diego's rules and regulations, prevention of potential hazards and preservation of the recycled water distribution system plans in "as built" form. Designated recycled water supervisors shall obtain instruction in the use of recycled water from an institution approved by the State

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and County Health Departments.

6. The City of San Diego may terminate service to a recycled water user who uses, transports, or stores such water in violation of the City of San Diego's rules and regulations.
7. All recycled water storage facilities owned and/or operated by recycled water users shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24 hour frequency storm unless the Regional Board approves relaxed storm protection measures for the facility.
8. All recycled water storage facilities owned and/or operated by recycled water users shall be protected against 100 - year frequency peak stream flows as defined by the San Diego County flood control agency unless the Regional Board approves relaxed storm protection measures for the facility.
9. The Regional Board may initiate enforcement action against any recycled water user who discharges recycled water in violation of any applicable discharge requirement prescribed by the Regional Board or in a manner which creates or threatens to create conditions of pollution, contamination or nuisance, as defined in Water Code Section 13050.
10. A copy of the recycled water rules and regulations, irrigation system layout map, and a recycled water system operations manual shall be maintained at the use area. These documents shall be available to operating personnel at all times.
11. Irrigation with disinfected tertiary recycled water shall not take place within 50 feet of any domestic water supply well unless all of the following conditions have been met:
  - (a) A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from and the ground surface.
  - (b) The well contains an annular seal that extends from the surface into the aquitard.
  - (c) The well is housed to prevent any recycled water spray from coming into contact with the wellhead facilities.
  - (d) The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well.
  - (e) The owner of the well approves of the elimination of the buffer zone requirement.
12. Impoundment of disinfected tertiary recycled water shall not occur within 100 feet of any domestic water supply well.
13. Irrigation with, or impoundment of, disinfected secondary-2.2 or disinfected secondary -23 recycled water shall not take place within 100 feet of any domestic water supply well.

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14. Irrigation with, or impoundment of, undisinfected secondary recycled water shall not take place within 150 feet of any domestic water supply well.
15. Reclaimed water facilities shall be operated in accordance with best management practices (BMP's) to prevent direct human consumption of reclaimed water and to minimize misting, ponding, and runoff. BMP's shall be implemented that will minimize both public contact and discharge onto areas not under customer control.
16. Irrigation with reclaimed water shall be during periods of minimal human use of the service area. Consideration shall be given to allow a maximum dry-out time before the irrigated area will be used by the public.
17. All drinking fountains located within the approved use area shall be protected by location and/or structure from contact with recycled water spray, mist, or runoff. Protection shall be by design, construction practice, or system operation.
18. Facilities that may be used by the public, including but not limited to eating surfaces and playground equipment and located within the approved use areas, shall be protected to the maximum extent possible by siting and/or structure from contact by irrigation with recycled water spray, mist, or runoff. Protection shall be by design, construction practice or system operation.
19. Spray irrigation with recycled water, other than disinfected tertiary recycled water, shall not take place within 100 feet of the property line of a residence or a place where public exposure could be similar to that of a park, playground, or school yard.
20. All use areas where recycled water is used and that are accessible to the public shall be posted with conspicuous signs, in a size no less than 4 inches by 8 inches, that include the following wording and picture in a size no less than 4 inches high by 8 inches wide: "RECYCLED WATER -DO NOT DRINK". The picture is in Attachment 2. The sign(s) shall be of a size easily readable by the public..
21. No physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water.
22. The recycled water piping system shall not include any hose bibs. Quick couplers that are different from that used on the potable water system may be used.
23. The public water supply shall not be used as a backup or supplemental source of water for a recycled water system unless the connection between the two systems is protected by an air gap separation which complies with the requirements of Sections 7602(a) and 7603(a) of Title 17 and the approval of the public water system has been obtained. If a "Swivel-ell" type connection is used it must be used in accordance with the provisions of the Department of Health Services Policy Memo 95-004. Approved backflow prevention devices shall be provided, installed, tested, and maintained by the recycled water user in accordance with the applicable provisions of Title 17, Division 1, Chapter 5, Group 4, Article 2.

**ORDER NO. 2000-203**

24. No person other than the City of San Diego shall deliver recycled water to a facility. Connection to the irrigation system by an individual residence is prohibited.
25. All recycled water piping and appurtenances in new installations and appurtenances in retrofit installations shall be colored purple or distinctively wrapped with purple tape in accordance with Section 116815 of the California Health and Safety Code.
26. Reuse site shut down tests and inspections shall be monitored by the County of San Diego Department of Environmental Health or the State Department of Health Services.
27. Customer complaints concerning recycled water use that may involve public illness shall be reported to the County of San Diego Department of Environmental Health and the State Department of Health Services, and to the City of San Diego who shall maintain a log of all customer complaints regarding recycled water.
28. Any backflow prevention device installed to protect the public water system shall be inspected and maintained in accordance with Section 7605 of Title 17.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION**

**MONITORING AND REPORTING PROGRAM NO. 2000-203  
FOR THE  
CITY OF SAN DIEGO  
SOUTH BAY WATER RECLAMATION PLANT  
SAN DIEGO COUNTY**

**A. MONITORING PROVISIONS**

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this Order and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Regional Board.
2. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than  $\pm 10$  percent from true discharge rates throughout the range of expected discharge volumes.
3. Monitoring must be conducted according to United States Environmental Protection Agency test procedures approved under Title 40, Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified in this Order.
4. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Regional Board.
5. Monitoring results must be reported on discharge monitoring report forms approved by the Regional Board.
6. If the discharger monitors any pollutants more frequently than required by this Order, using test procedures approved under 40 CFR, Part 136, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring report. The increased frequency of monitoring shall also be reported.
7. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall

be maintained for a minimum of five years from the date of the sample, measurement, report or application. This period may be extended during the course, of any unresolved litigation regarding this discharge or when requested by the Regional Board.

8. Records of monitoring information shall include:
  - (a) The date, exact place, and time of sampling or measurements;
  - (b) The individual(s) who performed the sampling or measurements;
  - (c) The date(s) analyses were performed;
  - (d) The individual(s) who performed the analyses;
  - (e) The analytical techniques or method used; and
  - (f) The results of such analyses.
9. All monitoring instruments and devices which are used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.
10. The discharger shall report all instances of noncompliance not reported under Standard Provisions E.5 of this Order at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provisions E.5.
11. The monitoring reports shall be signed by an authorized person as required by Reporting and Record Keeping Requirement F.8.
12. A composite sample is defined as a combination of at least eight sample aliquot of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. For volatile pollutants, aliquot must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquot may be collected manually or automatically.
13. A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.
14. Sampling and analysis shall, as a minimum, be conducted in accordance with Article

6 of California Code of Regulations, Title 22, Division 4, Chapter **3 (Reclamation Criteria)**

**B. EFFLUENT MONITORING**

1. SBWRP effluent shall be monitored at or near the effluent pump station, just prior to the distribution system.
2. The discharger is responsible for monitoring and reporting in accordance with the following schedule:

MONITORING PROGRAM				
Constituent	Unit	Sample Type	Sampling Frequency	Reporting Frequency
Flowrate	MGD	Continuous	Continuous	Monthly
Biochemical Oxygen Demand (BOD <sub>5</sub> @ 20° C)	mg/l	Composite	Daily	Monthly
Total Suspended Solids	mg/l	Composite	Daily	Monthly
Volatile Suspended Solids	mg/l	Composite	Daily	Monthly
pH	Unit	Grab	Daily	Monthly
Total Dissolved Solids	mg/l	Composite	Monthly	Monthly
Chloride	mg/l	Composite	Monthly	Monthly
Sulfate	mg/l	Composite	Monthly	Monthly
% Na	%	Composite	Monthly	Monthly
Nitrate as N	mg/l	Composite	Monthly	Monthly
MBAS	mg/l	Composite	Monthly	Monthly
Iron	mg/l	Composite	Monthly	Monthly
Manganese	mg/l	Composite	Monthly	Monthly
Boron	mg/l	Composite	Monthly	Monthly
Fluoride	mg/l	Composite	Monthly	Monthly
Coliform	MPN/100ml	Grab	*	Monthly
Turbidity Four-hour results Daily average	NTU	Continuous	**	Monthly

Daily 95 <sup>th</sup> percentile				
UV Dose*** UV Intensity Exposure/Residence Time	$\text{mW.s/cm}^2$ $\text{mW/cm}^2$ Second	Continuous	Continuous	Monthly
Fluid Transmittance	%	Continuous	Continuous	Monthly
Liquid Level in UV Channel	feet	Continuous	Continuous	Monthly
Lamp Age	Hour	Continuous	Continuous	Monthly

Notes: MGD = Million gallons per day  
Number per 100 milliliters

MPN/100ml = Most Probable

mg/l = milligrams per liter  
mg-min/l = milligram-minutes per liter

NTU = Nephelometric Turbidity Units

\* Samples for total coliform bacteria shall be collected at least daily and samples shall be taken from the disinfected effluent at a time when wastewater characteristics are most demanding on the treatment facilities and disinfection facilities

\*\* Turbidity analysis shall be continuous, performed by a continuous recording turbidity meter. Compliance with the daily average operating filter effluent turbidity shall be determined by averaging the levels of recorded turbidity taken at four-hour intervals over a 24-hour period. Compliance with turbidity pursuant to Section 60301.320(a)(2)(B) and (b)(1) shall be determined using the levels of recorded turbidity taken at intervals of no more than 1.2-hours over a 24-hour period. Should the continuous turbidity meter and recorder fail, grab sampling at a minimum frequency of 1.2 hours may be substituted for a period of up to 24-hours. The results of the daily average turbidity determinations shall be reported monthly.

\*\*\* The alarm system should be activated if the average UV dose falls below  $140 \text{ mW.s/cm}^2$  for more than three minutes

The discharger shall increase the monitoring frequency whenever the monitoring data indicates a violation of the daily maximum limits listed in A.1, Discharge *Specifications* of this Order. The frequency shall increase from monthly to weekly. The weekly monitoring will continue until the discharger achieves compliance with the limitations for two consecutive weeks. After compliance is achieved, the discharger shall resume monitoring at the monthly frequency.

3. City of San Diego shall review the monitoring results for compliance with Order No. 2000-203 and submit a statement of compliance as part of Monitoring and Reporting Program No. 2000-203. The statement of compliance shall identify and report all effluent limitation violations of Discharge Specifications No. A. 1 and A.3 of this



Order.

### **C. SEWAGE SOLIDS AND BIOSOLIDS**

A record of the type, quantity, and manner of disposal and/or reuse of non-recycled sewage solids removed in the course of sewage treatment shall be maintained at the facility and made available to the Regional Board staff.

A biosolids certification, certifying that the use and disposal of biosolids complies with existing Federal and State laws and regulations, including permitting requirements and technical standards included in 40 CFR 503 shall be submitted annually.

### **D. RECYCLED WATER USERS SUMMARY REPORT**

1. The City of San Diego shall submit a quarterly recycled water users summary report containing the following information:
  - a) Total volume of recycled water supplied to all recycled water users for each month of the reporting period.
  - b) Total number of recycled water use sites.
  - c) Address of the recycled water use site
  - d) Basin Plan name and number of hydrologic subarea underlying the recycled water use site
2. The City of San Diego shall submit an annual recycled water users compliance report containing the following information:
  - a) Recycled water use site information:
    - 1) Name of the recycled water use site
    - 2) Owner of the recycled water use facility
    - 3) Name of the recycled water use supervisor
    - 4) Phone number of the recycled water use supervisor
    - 5) Mailing address of the recycled water use supervisor, if different from site address
    - 6) Volume of recycled water delivered to the recycled water use site on a monthly basis.
  - b) Recycled water use site inspections

Number of recycled water use site inspections conducted by the City of San Diego staff and identification of sites inspected for the reporting period.
  - c) Recycled water user violations of the City of San Diego's rules and

regulations

The City of San Diego shall identify all recycled water users known by the discharger to be in violation of the discharger's rules and regulations for recycled water users. The report shall include a description of the noncompliance and its cause, including the period of noncompliance, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

**D. REPORTING**

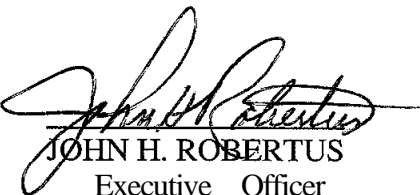
Monitoring reports shall be submitted to the Regional Board in accordance with the following schedule:

<u>Reporting Frequency</u>	<u>Report Period</u>	<u>Report Due</u>
Monthly	January, February, March, April, May, June, July, August, September, October, November, December	By the 30 <sup>th</sup> day of the following month (28 <sup>th</sup> for February)
Quarterly	January-March A p r i l - J u n e July-September October-December	April 30 July 30 October 30 January 30
Annually	January-December	January 30

Monitoring reports shall be submitted to:

California Regional Water Quality Control Board  
San Diego Region  
9771 Clairemont Mesa Blvd., Suite A  
San Diego, CA 92124-1324  
Attention Groundwater Unit

Ordered by

  
JOHN H. ROBERTUS  
Executive Officer

November 8, 2000